

EFFECTIVE DATE

Section applicable to fuel produced, and sold or used, after Dec. 31, 2004, in taxable years ending after such date, see section 302(d) of Pub. L. 108-357, set out as an Effective Date of 2004 Amendment note under section 38 of this title.

§ 40B. Sustainable aviation fuel credit**(a) In general**

For purposes of section 38, the sustainable aviation fuel credit determined under this section for the taxable year is, with respect to any sale or use of a qualified mixture which occurs during such taxable year, an amount equal to the product of—

- (1) the number of gallons of sustainable aviation fuel in such mixture, multiplied by
- (2) the sum of—
 - (A) \$1.25, plus
 - (B) the applicable supplementary amount with respect to such sustainable aviation fuel.

(b) Applicable supplementary amount

For purposes of this section, the term “applicable supplementary amount” means, with respect to any sustainable aviation fuel, an amount equal to \$0.01 for each percentage point by which the lifecycle greenhouse gas emissions reduction percentage with respect to such fuel exceeds 50 percent. In no event shall the applicable supplementary amount determined under this subsection exceed \$0.50.

(c) Qualified mixture

For purposes of this section, the term “qualified mixture” means a mixture of sustainable aviation fuel and kerosene if—

- (1) such mixture is produced by the taxpayer in the United States,
- (2) such mixture is used by the taxpayer (or sold by the taxpayer for use) in an aircraft,
- (3) such sale or use is in the ordinary course of a trade or business of the taxpayer, and
- (4) the transfer of such mixture to the fuel tank of such aircraft occurs in the United States.

(d) Sustainable aviation fuel**(1) In general**

For purposes of this section, the term “sustainable aviation fuel” means liquid fuel, the portion of which is not kerosene, which—

- (A) meets the requirements of—
 - (i) ASTM International Standard D7566, or
 - (ii) the Fischer Tropsch provisions of ASTM International Standard D1655, Annex A1,
- (B) is not derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock which is not biomass,
- (C) is not derived from palm fatty acid distillates or petroleum, and
- (D) has been certified in accordance with subsection (e) as having a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent.

(2) Definitions

In this subsection—

(A) Applicable material

The term “applicable material” means—

- (i) monoglycerides, diglycerides, and triglycerides,
- (ii) free fatty acids, and
- (iii) fatty acid esters.

(B) Biomass

The term “biomass” has the same meaning given such term in section 45K(c)(3).

(e) Lifecycle greenhouse gas emissions reduction percentage

For purposes of this section, the term “lifecycle greenhouse gas emissions reduction percentage” means, with respect to any sustainable aviation fuel, the percentage reduction in lifecycle greenhouse gas emissions achieved by such fuel as compared with petroleum-based jet fuel, as defined in accordance with—

- (1) the most recent Carbon Offsetting and Reduction Scheme for International Aviation which has been adopted by the International Civil Aviation Organization with the agreement of the United States, or
- (2) any similar methodology which satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section.

(f) Registration of sustainable aviation fuel producers

No credit shall be allowed under this section with respect to any sustainable aviation fuel unless the producer or importer of such fuel—

- (1) is registered with the Secretary under section 4101, and
- (2) provides—
 - (A) certification (in such form and manner as the Secretary shall prescribe) from an unrelated party demonstrating compliance with—

(i) any general requirements, supply chain traceability requirements, and information transmission requirements established under the Carbon Offsetting and Reduction Scheme for International Aviation described in paragraph (1) of subsection (e), or

(ii) in the case of any methodology established under paragraph (2) of such subsection, requirements similar to the requirements described in clause (i), and

(B) such other information with respect to such fuel as the Secretary may require for purposes of carrying out this section.

(g) Coordination with credit against excise tax

The amount of the credit determined under this section with respect to any sustainable aviation fuel shall, under rules prescribed by the Secretary, be properly reduced to take into account any benefit provided with respect to such sustainable aviation fuel solely by reason of the application of section 6426 or 6427(e).

(h) Termination

This section shall not apply to any sale or use after December 31, 2024.

(Added Pub. L. 117-169, title I, § 13203(a), Aug. 16, 2022, 136 Stat. 1932.)

Editorial Notes**REFERENCES IN TEXT**

The date of enactment of this section, referred to in subsec. (e)(2), is the date of enactment of Pub. L. 117-169, which was approved Aug. 16, 2022.

Statutory Notes and Related Subsidiaries**EFFECTIVE DATE**

Pub. L. 117-169, title I, §13203(f), Aug. 16, 2022, 136 Stat. 1935, provided that: “The amendments made by this section [enacting this section and amending sections 38, 40A, 87, 4101, 6426, and 6427 of this title] shall apply to fuel sold or used after December 31, 2022.”

§ 41. Credit for increasing research activities**(a) General rule**

For purposes of section 38, the research credit determined under this section for the taxable year shall be an amount equal to the sum of—

(1) 20 percent of the excess (if any) of—

(A) the qualified research expenses for the taxable year, over

(B) the base amount,

(2) 20 percent of the basic research payments determined under subsection (e)(1)(A), and

(3) 20 percent of the amounts paid or incurred by the taxpayer in carrying on any trade or business of the taxpayer during the taxable year (including as contributions) to an energy research consortium for energy research.

(b) Qualified research expenses

For purposes of this section—

(1) Qualified research expenses

The term “qualified research expenses” means the sum of the following amounts which are paid or incurred by the taxpayer during the taxable year in carrying on any trade or business of the taxpayer—

(A) in-house research expenses, and

(B) contract research expenses.

(2) In-house research expenses**(A) In general**

The term “in-house research expenses” means—

(i) any wages paid or incurred to an employee for qualified services performed by such employee,

(ii) any amount paid or incurred for supplies used in the conduct of qualified research, and

(iii) under regulations prescribed by the Secretary, any amount paid or incurred to another person for the right to use computers in the conduct of qualified research.

Clause (iii) shall not apply to any amount to the extent that the taxpayer (or any person with whom the taxpayer must aggregate expenditures under subsection (f)(1)) receives or accrues any amount from any other person for the right to use substantially identical personal property.

(B) Qualified services

The term “qualified services” means services consisting of—

(i) engaging in qualified research, or

(ii) engaging in the direct supervision or direct support of research activities which constitute qualified research.

If substantially all of the services performed by an individual for the taxpayer during the taxable year consists of services meeting the requirements of clause (i) or (ii), the term “qualified services” means all of the services performed by such individual for the taxpayer during the taxable year.

(C) Supplies

The term “supplies” means any tangible property other than—

(i) land or improvements to land, and

(ii) property of a character subject to the allowance for depreciation.

(D) Wages**(i) In general**

The term “wages” has the meaning given such term by section 3401(a).

(ii) Self-employed individuals and owner-employees

In the case of an employee (within the meaning of section 401(c)(1)), the term “wages” includes the earned income (as defined in section 401(c)(2)) of such employee.

(iii) Exclusion for wages to which work opportunity credit applies

The term “wages” shall not include any amount taken into account in determining the work opportunity credit under section 51(a).

(3) Contract research expenses**(A) In general**

The term “contract research expenses” means 65 percent of any amount paid or incurred by the taxpayer to any person (other than an employee of the taxpayer) for qualified research.

(B) Prepaid amounts

If any contract research expenses paid or incurred during any taxable year are attributable to qualified research to be conducted after the close of such taxable year, such amount shall be treated as paid or incurred during the period during which the qualified research is conducted.

(C) Amounts paid to certain research consortia**(i) In general**

Subparagraph (A) shall be applied by substituting “75 percent” for “65 percent” with respect to amounts paid or incurred by the taxpayer to a qualified research consortium for qualified research on behalf of the taxpayer and 1 or more unrelated taxpayers. For purposes of the preceding sentence, all persons treated as a single employer under subsection (a) or (b) of section 52 shall be treated as related taxpayers.

(ii) Qualified research consortium

The term “qualified research consortium” means any organization which—